

DATA INTEGRITY ERROR HANDLING IN A REDUNDANT STORAGE ARRAY**Nisha D. Talagala****Chia Y. Wu**

5

ABSTRACT OF THE DISCLOSURE

10 Data integrity errors in a redundant storage array are handled by storing a plurality of data blocks having a horizontal redundant relationship and storing a plurality of checksums, each checksum having a vertical redundant relationship with a corresponding one of the plurality of data blocks. In response to detection of a data integrity error in at least one of the plurality of data blocks, the vertical redundant relationships between each of the checksums in the plurality of checksums and the corresponding data blocks are reviewed and the horizontal redundant relationship between the data block having the data integrity error and the remaining data blocks in the plurality of data blocks is also reviewed. The results of these reviews of the redundant relationships can be used to diagnose and repair the data integrity error.